The Women's Research Report 2024

Research for change

the women's
the royal women's hospital

2024 highlights

Collaboration

45%
INTERNATIONAL

45% of the 298 papers involved an international collaboration.

66
COUNTRIES

683
INSTITUTIONS

Co-authors of these papers came from 66 countries and 683 different institutions.

298
PUBLICATIONS

Clinical trials

68
CLINICAL TRIALS

5355
PATIENTS RECRUITED

77
RESEARCH STUDENTS

Funding

$29.3 million
GRANTS HELD

including $22.1m NHMRC/ARC/ MRFF GRANTS

$8 million
GRANTS SPENT

Including $5.5m NHMRC/ARC/ MRFF GRANTS

Contents

Printed on EcoStar+ 100% Recycled - Uncoated Indigo.

Acknowledgement and thanks

The Women's acknowledges the Wurundjeri and Boonwurrung peoples of the Kulin Nation as the Traditional Custodians of the land on which we are privileged to work and care. We pay deep respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples.

We recognise that sovereignty was never ceded, and that colonisation continues to impact the health and wellbeing of Aboriginal and Torres Strait Islander communities. We are committed to walking alongside First Nations peoples in the spirit of truth, justice and self-determination.

At the Women's, we strive to improve health equity for Aboriginal and Torres Strait Islander women, children, and families. We honour the enduring cultural traditions, knowledge systems, spiritual practices, and deep connection to Country that are essential to holistic wellbeing. We acknowledge the strength of kinship networks, community ties, and cultural identity as powerful protective factors that uphold health and resilience.

Respect for gender diversity

We acknowledge and affirm that gender is diverse, and we are committed to creating a safe, respectful and inclusive environment for people of all gender identities. While this report refers to 'women' and 'girls', this language reflects the primary population we serve but is not intended to exclude people of other genders who may also access our services or participate in our research. Our commitment remains to embrace and respect the diverse experiences, bodies, identities, relationships and beliefs of all people.

Thank you to our supporters

As a public hospital, the Women's relies on the generosity of our philanthropic supporters to pursue bold research, innovate in care delivery, and amplify impact across generations. Your contributions enable us to advance world-class clinical research and deliver better health outcomes for women, babies and families.

To our community of supporters, including individuals and charitable trusts, past and present patients, thank you. Your investment helps transform care, reduce inequities, and shape the future of women's and newborn health.

Thank you to our contributors

We extend our sincere gratitude to all who make our research possible: the funding bodies, Research Advisory Committee, hospital leadership, research staff, clinical teams, and academic collaborators who contribute to our work every day. The Women's Human Research Ethics Committee, chaired by Dr Ben Cebon, closed in 2024. Ethics oversight, moving forward, continues to be provided by external committees. We thank all members who served on the committee for the important contribution they made to ensure research undertaken at the Women's was conducted in a safe and ethical manner. Most of all, we thank the patients and families who generously take part in our studies. Your stories, your trust, and your time drive discoveries that change lives.

Support our research

Philanthropy is a powerful catalyst for progress, it makes ground-breaking discoveries and compassionate care showcased in this report.

If you would like to support the Women's research efforts, please consider making a donation online at **thewomens.org.au/donate**

For more information, contact our Philanthropy and Community Investment team:

phone: (03) 8345 2954
email: give@thewomens.org.au

Together, we can shape a healthier, more equitable future for all.

Foreword

At the Women's, research is critically important to how we drive meaningful change in the lives of all women. The **2024 Research Report: *Research for Change*** showcases how our work is shaping safer care during pregnancy and birth, challenging outdated norms, and improving outcomes for newborns and women at every phase of life.

As a specialist tertiary hospital, we have enormous opportunity to translate, evidence-based knowledge into real impact. Our research program is hospital-based enabling new insights, care models and treatments to be fast tracked to clinical practice at the bedside.

We focus on outcomes that are measurable, meaningful, and grounded in community need. Our research spans the full spectrum of care ranging from neonatal care, reproductive and sexual health, fertility preservation in young people facing cancer, to care across a woman's life span.

This year, our research has expanded with the launch of the Moyna Fox Fertility Research Centre, the establishment of Public Fertility Care, and our leadership in international conversations around menopause, equitable access to treatment, and the safety of medications during pregnancy. We've also taken essential steps toward addressing longstanding gaps in healthcare equity. Whether it's improving care for First Nations women and their babies, or designing inclusive clinical trials for gynaecological cancer, our teams are focused on research that reflects and respects the real world.

We thank all the women and families who contribute to our research through their participation, insights and lived experience. Your voices shape our work and drive our purpose.

This report is a testament to the talent, dedication and values of our researchers, clinicians and collaborators. Their work continues to influence national and international standards, changes awareness and behaviours, and most importantly, ensure that newborn and women's health is understood and prioritised.

Philanthropy has been an instrumental part of this story. The generosity of our donors powers our innovation, enabling us to explore new limits and launch projects that would not otherwise be possible. We thank our community of donors and supporters for their belief in the power of research and for their vision, generosity, and courage in making it a reality.

At the Women's, research is the engine of change. It's through deep collaboration across disciplines, grounded in lived experience, that we drive improvements in health outcomes. This approach is essential to building a more equitable future, where every woman and baby has access to care informed by the latest research and tailored to their needs.

We hope you enjoy reading the Women's 2024 Research Report.

"At the Women's, research is the engine of change"

Nicola Yuen,
Chief Medical Officer

Sue Matthews,
Chief Executive Officer

Research at the Women's

Professor Peter Rogers, Director, the Women's Research Program; Deputy Director of the Women's Gynaecology Research Centre

At the Women's, research is embedded in every aspect of our work, from the earliest stages of life through to the complexities of ageing and chronic disease. Across our network of research centres and programs, we bring together scientists, clinicians, allied health professionals, and community voices to address the unique health needs of women and newborns. Our shared commitment to collaboration, equity and translation means that discoveries made at the Women's are not only rigorous but rapidly translated into improved care and outcomes. I am proud to present the outstanding contributions of our researchers, who continue to ask bold questions and deliver meaningful change.

Newborn Research Centre

Professor Peter Davis (Director), Dr Marta Thio (Deputy Director)

The Newborn Research Centre team is dedicated to giving every baby, regardless of their size or how early they arrive, the best possible start to life. The team has demonstrated that it is possible to undertake high-quality studies in the often fast-paced and stressful environment of the delivery room, helping find new ways to monitor and treat newborn babies. The cornerstone of neonatal intensive care is the support provided to the newborn preterm babies' lungs. We have evaluated a method of imaging these lungs using ultrasound, offering a safer alternative to conventional chest x-rays by avoiding harmful radiation exposure. In addition to contributing to the pool of evidence guiding neonatal care, our team plays an important role in the synthesis and dissemination of this evidence through groups such as the Cochrane Library and the International Liaison Committee on Resuscitation. We are also exploring how interventions in the newborn period may shape health outcomes in later life.

Centre for Women's Infectious Diseases

Professor Suzanne Garland AO (Director), Dr Gerald Murray (Senior Scientist)

The Centre for Women's Infectious Diseases conducts clinical research, cutting-edge molecular diagnostics and geno-surveillance in the fields of neonatal and infectious diseases research, including reproductive and sexual health. Key research areas include cervical and anal cancer, and sexual health and mother-to-baby infections, with emphasis on providing evidence for changes that may translate into clinical practice to support improved patient health.

Gynaecology Research Centre

Professor Martha Hickey (Co-director), Professor Eva Dimitriadis (Co-director), Professor Peter Rogers (Deputy Director)

The Women's Gynaecology Research Centre brings together clinical, psychosocial, and laboratory expertise to investigate common conditions affecting women of all ages. The centre's research has directly improved patient care through prevention, diagnosis, and management of a wide range of conditions affecting women's health.

Women's Cancer Research Centre

Associate Professor Orla McNally (Director Gynaecology Tumour Stream, VCCCA)

The Women's Cancer research centre investigates gynaecological cancers (uterine; ovarian/ fallopian tube; cervical; and vulval) with a focus on prevention, early detection and the impact of genetics in cancer risk. The team conducts translational research and offers clinical trial participation through the Women's and the Victorian Comprehensive Cancer Centre Alliance Clinical Trials Unit in Parkville. Cancer prevention is also a focus of the team's research.

Midwifery & Maternity Services Research Unit

Professor Della Forster (Director)

The Midwifery and Maternity Services Research Unit aims to ensure high-quality, evidence-based care for women during pregnancy, birth and the postnatal period. Research focuses on midwifery-led models of care, breastfeeding, perinatal mental health and workforce sustainability – centering the voices of women and midwives throughout.

Centre for Family Violence Prevention

Professor Kelsey Hegarty (Director), Dr Elizabeth McLinden (Deputy Director)

The Centre for Family Violence Prevention works to improve the safety and wellbeing of women and their families affected by abuse perpetuated by their partner or family members. Through research with victim survivors and practitioners, the team develops evidence-based models for identifying women at risk. The Centre

also leads research to support victim survivor staff at the Women's and helps other health services improve responses to family violence.

Allied Health Research

Associate Professor Helena Frawley (Director)

The Allied Health Research Centre at the Women's is dedicated to generating high-quality research that informs clinical practice and translates into improved health outcomes. Our focus is on enhancing the safety, quality and well-being of women, babies, and their families through evidence-based, patient-centred care. Allied health spans a range of disciplines including physiotherapy, dietetics, pharmacy, speech pathology and genetic counselling, which allows us to address complex health challenges in an integrated manner.

Pregnancy Research Centre

Professor Shaun Brennecke AO (Director), Associate Professor Bill Kalionis (Deputy Head)

The Pregnancy Research Centre at the Women's is dedicated to advancing our understanding of pregnancy-related conditions that can compromise the health of mothers and their babies. These include miscarriage, preeclampsia, fetal growth restriction, gestational diabetes and preterm labour. The Centre's team uses a range of contemporary research approaches, spanning biomedical laboratory investigations, clinical studies, treatment trials and public health advocacy, to drive evidence-based improvements in the clinical management of pregnancy disorders.

Social Model of Health Research

Clare Manning (Director)

A woman's health and well-being is influenced not only by medical problems but by social and environmental factors. These non-medical factors include socioeconomic status; access to education and housing; freedom from violence and more. The Social Model of Health Division conducts research focused on addressing health inequities caused by these social determinants of health. Professor Kelsey Hegarty works in close partnership with the Strengthening Hospital Response to Family Violence team in the Social Model of Health Division, on a range of state and national initiatives.

Anaesthetics Research

Dr Patrick Tan (Research Lead)

The Anaesthetics Research Centre aims to improve outcomes and reduce risks in anaesthetic care for women. Research focuses on obstetric airway management, high blood pressure, critical illness, and pain relief for women in the perioperative period. Current projects include studies on high flow nasal oxygen in pregnant women, improving labour pain relief and caesarean section management.

Moyna Fox Fertility Research Centre

Associate Professor Wan Tinn Teh (Director)

The Moyna Fox Fertility Research Centre focuses on four key areas: Advancing fertility preservation in adults and children, enhancing the safety and success of fertility treatments, investigating the role of the endometrium in reproductive failures and supporting the health of children born through fertility treatments.

Obstetric Medicine Research Group

Dr Sarah Price (Group Head)

The lifelong importance to mother and baby of managing maternal medical conditions before, during and after pregnancy is increasingly recognised. The Obstetric Medicine Research Group aims to improve outcomes for all women with medical disorders that may affect their pregnancy and give their babies the best chance of lifelong good health.

Perinatal Research

Dr Clare Whitehead (Group head)

The Women's Perinatal Research Group aims to improve outcomes for mothers and babies affected by complications including preterm birth, fetal growth restriction and preeclampsia. The team focuses on understanding why complications arise, how to detect them early and developing effective treatments for them using innovative clinical trial designs.

Imaging and Ultrasound Research Group

Dr Debbie Nisbet (Group Head)

Imaging and ultrasound research at the Women's focuses on preventing, diagnosing, and managing conditions affecting both mother and fetus. Current studies include outcomes after chorion villous (placental tissue) sampling; the correct medication to use for fetal tachyarrhythmias (abnormal heart rhythm) and aspirin use to prevent early onset preeclampsia in twin pregnancies. Studies also address women's health issues like adenomyosis, endometriosis and the significance of ultrasound findings such as endometrial cysts.

Gandel Simulation Service Research

Dr Rebecca Szabo (Group Head)

The Gandel Simulation Service uses simulation to improve education, health systems, and patient safety. Focusing on teamwork, quality improvement and simulation-based education, the team applies principles of improvement science and human factors to enhance clinical practice and training.

Research impact

Equity in women's health

Advocacy across life stages, cultures and communities

Pharmaceuticals in pregnancy: a multifaceted challenge in Australia.

Pregnant women in Australia suffer inequities in the availability, safety categorisation and testing of medications. Associate Professor Stefan Kane, Director of Maternity Services (medical) at the Women's, highlighted these challenges in a Medical Journal of Australia paper*, identifying three major key issues: limited clinical trial data; reliance on out-dated or off-label medications, and inadequate risk labelling.

Historically, pregnant women, and those who could become pregnant, have been excluded from most drug trials due to concerns about legal liability and past tragedies such as thalidomide. As a result, many newer treatments remain untested in pregnancy, leaving women and their doctors without clear guidance on safe dosing or effectiveness in mother and baby.

Many drugs known to be safe in pregnancy, particularly those with low profit margins, are often not registered with the Therapeutic Goods Administration (TGA) for use in this context, making supply vulnerable to interruptions and shortages which can disrupt a women's treatment. Clinicians often rely on older, off-patent medications like immediate-release nifedipine for high blood pressure, and misoprostol for postpartum bleeding, even though these are not officially licensed for those purposes in Australia, despite appearing in national treatment guidelines.

The TGA's letter system (A,B,C,D,X) for medication safety in pregnancy is outdated and often misleading. Based largely on animal studies and rarely updated, these categories can group very different levels of risk under the same label. This can lead to an overemphasis on possible dangers and under-treatment of conditions that pose their own risks to mother and baby. For example, aspirin – a proven way to reduce the chance of preeclampsia – is labelled "C," which discourages its use even though experts recommend it for hundreds of thousands of pregnant women each year. Similarly, metronidazole, an antibiotic safely used in pregnancy for decades, remains in category B1, causing unnecessary alarm.

To ensure pregnant women receive the same high-quality, evidence-based care as others, Assoc Prof Kane recommends several key reforms:

• Introduce liability protections, clear trial guidelines and financial incentives to support the inclusion of pregnant women in clinical trials.

• Establish a not-for-profit body, or empower the Department of Health to register, import and stockpile essential pregnancy medicines that lack commercial backing.

• Replace the outdated A–X categories with regularly updated, drug-specific summaries of known risks and benefits for use in pregnancy and breastfeeding.

• Expand programs that waive fees for re-licensing older medications for pregnancy-specific uses.

Kane SC, Shanmugalingam R and Henry A. *Pharmaceuticals in pregnancy: a multifaceted challenge in Australia.* Med J Aust. 2024 Oct 7;221(7): 357-359.

CPR training as a gender and human rights-based issue

Cardiac arrest is a leading cause of death amongst women, yet they are significantly less likely than men to receive cardiopulmonary resuscitation (CPR). Studies have indicated one contributing factor is bystander hesitation, driven in part by fear of being accused of sexual harassment when CPR requires touching women's breasts.

A recent study* led by Dr Rebecca Szabo from the Gandel Simulation Service, at the Women's and The University of Melbourne, found that 95% of CPR training manikins, are flat chested, resembling male anatomy. While CPR compression technique is no different for women than men, based on existing simulation studies training on only male-appearing mannikins, may reduce the likelihood of a bystander intervening if confronted with, a bra and breasts, in an emergency situation, says Dr Szabo.

The study, is the first of its kind to name this as both a gender and human rights issue, tying it to broader commercial determinants and structural biases in health; it provides an overview of what products are available on the global market.

Prof Bronwyn Graham, the national director of the Centre for Sex and Gender Equity in Health and Medicine at The George Institute for Global Health, said:

"Szabo and colleagues' findings are emblematic of a widespread bias in the health and medical ecosystem that has led to healthcare practices being optimised for the white male body; with detrimental and sometimes deadly implications for anyone who doesn't fit this mould". Dr Szabo says,

"Ensuring equitable availability of diverse CPR training manikins globally is the responsibility of manufacturers, distributors, training organisations and educators".

She urges CPR training providers, regulatory bodies and manufacturers to collectively adopt a rights-based approach by ensuring diverse, realistic training manikins are made widely available. Equity in CPR training may make a crucial difference to women's survival.

"Ensuring equitable availability of diverse CPR training manikins globally is the responsibility of manufacturers, distributors, training organisations and educators".

— Dr Rebecca Szabo

*Szabo RA, Forrest K, Morley P, Barwick S, Bajaj K, Britt K, Yong SA, Park-Ross J, Story D and Stokes-Parish J. *CPR training as a gender and rights-based healthcare issue.* Health Promot Int. 2024 Dec 1;39(6): daae156.


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Gendered disparities for equity in menopause care

Menopause is a universal experience for women, but how it's experienced and managed is far from equal. Factors like education, ethnicity, employment, geography, and stigma colour a women's experience of the menopause. Research shows that women from lower socioeconomic and culturally diverse backgrounds experience poorer access to support and treatment. These inequities are driven by gendered assumptions in healthcare, limited access to culturally safe care, and affordability barriers.

Associate Professor Michelle Peate, Program Lead at the Psychosocial Health and Wellbeing Research Unit at the Women's, addressed these issues in a recent publication. She noted that

"Menopause care must move beyond a 'one-size-fits-most' approach. To truly support women, we need care models that reflect their diverse lives, challenges, and preferences—and that means tackling the social and structural inequities baked into our health systems."

Centering the health experience on the woman rather than her symptoms alone, is likely to have multiple benefits. Not only is it likely to reduce the stigma around menopause, one might expect to see improvements in the physical and mental health of women once their symptoms resolve. It also empowers women to seek the care they require.

The study revealed just how little is known about the relative importance of different drivers of disparity—such as structural discrimination versus personal health beliefs—in shaping the menopause experience. Despite its widespread use, there is a lack of safety data on menopausal hormone therapy (MHT) in diverse populations.

Assoc Prof Peate called for better training of health professionals and the integration of decision support tools tailored to diverse populations. These strategies can improve recognition, communication, and treatment planning in everyday practice.

This paper lays the foundation for more targeted interventions and policies to improve equity. Next steps include co-designing practical tools with women from diverse backgrounds, examining workplace and community-level supports, and advocating for research that reflects patient priorities—not just academic or industry agendas.

Inequity in fertility treatment for non-English speaking patients

Despite the availability of fertility services in a multicultural setting, patients who speak a language other than English (LOTE,) access treatment at much lower rates than English speaking patients, according to new research* led by Associate Professor Wan Tinn Teh from Public Fertility Care at the Women's.

The study revealed that even after adjusting for socioeconomic and demographic factors, LOTE patients received significantly fewer in vitro fertilisation (IVF) cycles, had higher rates of all-cause IVF cycle cancellation, and experienced longer median wait times from their first appointment to the start of treatment.

These findings suggest that language remains an independent barrier to fertility care, beyond financial or logistical challenges. Fertility treatment involves complex pathways, with multiple appointments, decisions, and instructions. Without sufficient language support, health literacy suffers and patients may struggle to navigate this process.

To address this inequity, Assoc Prof Teh recommends greater access to professional interpreters, multi-lingual patient information and training for clinicians in culturally and linguistically inclusive care. Improved communication and support can potentially lead to better patient engagement, more timely diagnoses and treatment for women who might otherwise be disadvantaged.

'Language should never be a barrier to becoming a parent', says Assoc Prof Teh.

She hopes this work will inform national policy and accreditation standards in fertility care.

"To truly support women, we need care models that reflect their diverse lives."

— A/Prof Michelle Peate

Peate M, Johnson TL, Avis NE and Hickey M. *Addressing sociodemographic, socioeconomic, and gendered disparities for equity in menopause care.* Cell Rep Med. 2024 Jun 18;5(6):101616.

Pyle A, Teh WT and Giles ML. *Inequity in fertility treatment for patients that speak a language other than English: A retrospective cohort study.* J Racial Ethn Health Disparities. 2024.

Advancing reproductive health

Transforming fertility care

The Women's continues to lead the way in reproductive health research by improving care, expanding access to treatment, and driving more equitable fertility options.

In 2024, this leadership was demonstrated through three major milestones:

- the launch of the Moyna Fox Fertility Research Centre;
- the continued growth of Public Fertility Care, underpinned by strong partnerships; and
- the development of a new national fertility and tissue preservation program for young people diagnosed with cancer.

The newly launched Moyna Fox Fertility Research Centre was established with a generous $1.6 million donation from the Stafford Fox Medical Research Foundation. Infertility remains one of the most personal and distressing health challenges for individuals and couples. This significant investment will support research into the causes of infertility and facilitate the development of new treatments and interventions. It will focus on optimising fertility treatments to improve IVF success rates and investigating the role of the endometrium in unsuccessful pregnancies.

The development of In Time, Australia's first national fertility and tissue preservation initiative for young people undergoing cancer treatment, marked a major research milestone. Backed by a $6.4 million philanthropic commitment, from the Children's Cancer Foundation and My Room Children's Cancer Charity, this program integrates a strong research agenda alongside service delivery. Key focus areas include the development of tissue transport and cryopreservation protocols, education frameworks to guide clinicians nationally, and innovation in preservation techniques. Research from this program will inform national guidelines and help build a global evidence base for paediatric oncofertility care.

"The development of a national fertility and tissue preservation initiative for young people undergoing cancer treatment marked a major research milestone."

These projects exemplify how the Women's is embedding research into every layer of reproductive care, by advancing discovery, improving outcomes, and creating a future where reproductive health care is accessible, evidence-based, and equitable.

Understanding the quality of *in vitro* matured oocytes in fertility preservation

Women about to undergo cancer treatment may take steps to preserve their fertility in the hopes of having a child in future. However, it is difficult to counsel women on the likelihood of having a live birth from oocytes matured in vitro, because the factors which influence oocyte quality are poorly defined.

Fertility specialist, Dr Anastasia Kirillova and colleagues, investigated the quality of oocytes matured in vitro (IVM) as part of fertility preservation for cancer patients. The study* focused on women undergoing ovarian tissue oocyte IVM (OTO-IVM) and examined how clinical, demographic, and laboratory factors influenced oocyte quality.

Of the oocytes analysed, 69% showed at least one form of abnormality (dysmorphism), a rate comparable to oocytes matured through ovarian stimulation in traditional IVF cycles. Factors such as advanced maternal age, a history of gynaecological surgery, and ovarian cancer were associated with poorer oocyte quality. However, transporting ovarian tissue at body temperature (37°C) and selecting optimal culture media improved outcomes.

The findings highlight the importance of refining both laboratory protocols and patient selection criteria to enhance success rates. Dr Kirillova said more research is needed to better understand how these factors influence the likelihood of live birth in OTO-IVM fertility preservation.

*Quality of IVM ovarian tissue oocytes: impact of clinical, demographic, and laboratory factors. Maria Kashutina, Lilia Obosyan, Ekaterina Bunyaeva, Yury Zhernov, Anastasia Kirillova. Journal of Assisted Reproduction and Genetics (2024) 41:3079–3088.

"These projects exemplify how the Women's is embedding research into every layer of reproductive care, by advancing discovery, improving outcomes, and creating a future where reproductive health care is accessible, evidence-based, and equitable."

A strong start: driving better health outcomes for newborns

The PLUSS trial (Preventing lung disease using surfactant plus steroid)

The Women's is pioneering new treatments and technologies to create better futures for women and babies. Our researchers are committed to building a robust evidence base to enhance patient care in Australia and around the world.

One of these researchers is Professor Peter Davis, Director of Neonatal Medicine at the Women's.

Prof Davis has dedicated his career to improving outcomes for the sickest of babies. In 2024, his team completed a study (the PLUSS trial) investigating the effectiveness of mixing surfactant with the steroid budesonide on survival free of bronchopulmonary dysplasia (BPD), a chronic lung disease prevalent among extremely preterm babies. While early studies in Korea pointed to a promising result, research from the Women's found that mixing budesonide with surfactant had little to no effect on survival free of BPD.

"It's important not only to identify the things that work, but also the things that don't work," says Prof Davis.

The research team will now investigate whether different types of steroids mixed with surfactant will produce a different result.

Continuous improvement is critical in neonatology, but Prof Davis says this culture is particularly ingrained at the Women's and is resulting in better outcomes for babies born preterm.

"We're looking for the silver bullet, but it's a series of small changes that are getting us there and means we can offer hope to even the tiniest of babies."

The SHINE trial (Stabilisation with nasal high flow during neonatal endotracheal intubation)

Intubation is a highly technical procedure used to assist breathing. The procedure can be lifesaving, but inexperienced operators rarely have a chance to practice it.

Dr Kate Hodgson, neonatologist and neonatal research fellow at the Women's, has been investigating the predictors of successful neonatal intubation in inexperienced operators, in the SHINE trial. When a baby does require intubation, Dr Hodgson says there can be upwards of eight people in the room, including medical staff and sometimes family.

"The operator might be nervous. It can be very stressful to feel that you're being watched, and certainly that can result in lower success rates," she says.

Dr Hodgson's research found that for inexperienced operators, the use of nasal high flow therapy and premedications were important factors in ensuring a successful procedure. The results also emphasised the importance of matching inexperienced operators with more mature babies.

"We know that if the operator succeeds early on, that predicts later success, be that because they develop some confidence or they've learnt from that early success," explains Dr Hodgson.

The study has led to improved methods for intubation and data has been contributed to an international registry of intubation practice.

Manley BJ, Kamlin COF, Donath SM, Francis KL, Cheong JLY, Doyle LW, Davis PG et al. *PLUSS Trial Investigators*. JAMA. 2024 Dec 10;332(22):1889-1899.

Hodgson KA, Selvakumaran S, Francis KL, Owen LS, Newman SE, Kamlin COF, Donath S, Roberts CT, Davis PG, Manley BJ. *Predictors of successful neonatal intubation in inexperienced operators: a secondary, non-randomised analysis of the SHINE trial.* Arch Dis Child Fetal Neonatal Ed. 2024: fetal neonatal-2024-327081.

Looking to the future: life after hospital for high-risk babies

Professor Jeanie Cheong, consultant neonatologist and lead clinician in the High-Risk Newborn Follow-Up Clinic based at the Women's and Convenor of the Victorian Infant Collaborative Study, has been studying the long-term health and social outcomes of babies born preterm for many years. This research is building a picture of what life looks like beyond the newborn intensive care unit (NICU) and well into the adult years of children born preterm or of low birth weight.

She is acutely aware of the stressful and uncertain journey that parents face when preparing for preterm birth.

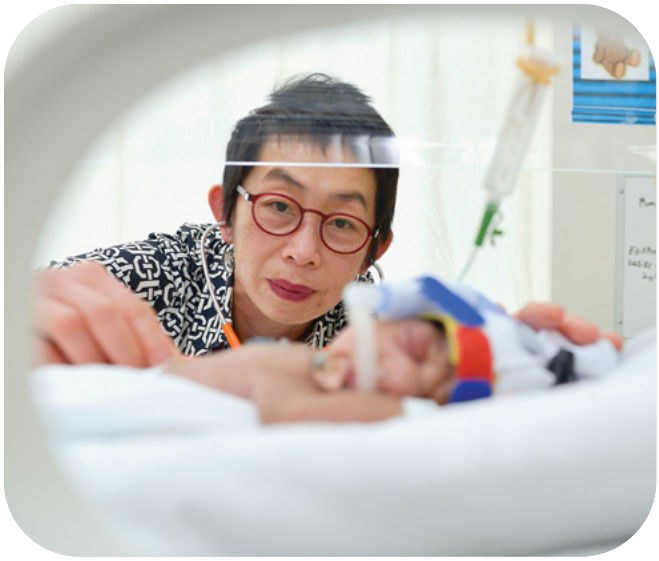
"There are all sorts of myths that you read on the internet. Good quality research is important so we can counsel families as to what the outcomes may be," she says.

Parental concerns change over time

For a parent with a child born preterm, neurodevelopmental and cognitive outcomes are a significant concern in the early years, according to Prof Cheong.

In a longitudinal study of children born moderately to late preterm, Prof Cheong and her team found that neurodevelopmental challenges persisted into school age, supporting the evidence for an assessment at age two to identify children at risk of school-age impairments. This would allow for clinical intervention early on.

Prof Cheong is also keen to understand the longer-term outcomes for children born extremely preterm or with extremely low birth weight. A study published in 2024 followed a cohort of survivors born extremely preterm or of extremely low birth weight, as they transitioned to adulthood. Outcomes investigated included educational achievement, employment, financial status, living arrangements, and physical and mental health. With the exceptions of main-income source, leaving the parental home and reduced risk-taking behaviours, the study found that at 25 years of age, the cohort was transitioning similarly to the term-born control group.



The insights into survivor and family experiences of preterm birth provided by the Consumer advisory group for the Centre for Research Excellence in Newborn Medicine, has been valuable, says Prof Cheong.

"One thing we keep hearing from parents is: 'We are not as concerned about the child's IQ. We want them to be happy. We want them to be able to live independently,'" she says.

"It really puts a different perspective on what is and isn't important."

*Quality of IVM ovarian tissue oocytes: impact of clinical, demographic, and laboratory factors. Maria Kashutina, Lilia Obosyan, Ekaterina Bunyaeva, Yury Zhernov, Anastasia Kirillova. *Journal of Assisted Reproduction and Genetics (2024)* 41:3079–3088.

*Marks IR, Doyle LW, Mainzer RM, Spittle AJ, Clark M, Boland RA, Anderson PJ, Cheong JL. *Neurosensory, cognitive and academic outcomes at 8 years in children born 22-23 weeks' gestation compared with more mature births.* Arch Dis Child Fetal Neonatal Ed. 2024 Aug 16;109(5):511-518.

*Pigdon L, Mainzer RM, Burnett AC, Anderson PJ, Roberts G, Patton GC, Cheung M, Wark JD, Garland SM, Albesher RA, Doyle LW, Cheong JLY; *Victorian Infant Collaborative Study Group. Transition to Adulthood for Extremely Preterm Survivors*. Pediatrics. 2024 Jan 1;153(1): e2022060119.

Early cerebral palsy screening empowers families

Giving babies with risk factors for cerebral palsy the best chance at a rich and fulfilling life is of paramount importance for Dr Amanda Kwong, Clinical Physiotherapist at the Women's Newborn Follow-Up Clinic and this requires early diagnosis and intervention

Cerebral palsy is the most common cause of childhood physical disability. While international guidelines state the condition can be diagnosed as early as three months of age, most children are diagnosed as toddlers and therefore miss out on many months of life-changing therapeutic intervention.

With the delay in diagnosis an impediment to early intervention, a 2024 knowledge translation study* led by Professor Alicia Spittle and coordinated by Dr Kwong, implemented early cerebral palsy screening among high-risk cohorts of babies in Victoria, New South Wales and Queensland. The babies were screened using multiple approaches, including medical imaging, movement assessment (in clinic or via a video app called Baby Moves) and, where appropriate, through a clinical assessment called the Hammersmith Infant Neurological Examination.

Dr Kwong was pleased to see considerable interest in the Baby Moves app, which parents can use to record videos of their baby's movements at their convenience. The videos are sent to the clinician for assessment, potentially eliminating the need for an in-clinic assessment and follow up, thereby reducing the time taken to diagnosis. Dr Kwong says this is changing the role of the parent when it comes to their child's diagnosis.

"We hope that parents can be a lot more empowered about what their children need," she says.

By harnessing the power of technology to gain invaluable patient insights, clinicians can provide families with answers sooner. Continued investment in the Women's neonatal research program is key to better outcomes for these patients and their families.

*Kwong AKL, Eeles AL, Anderson PJ, Badawi N, Boyd RN, Cameron KL, Cheong JLY, Colditz P, Koorts P, Crowle C, Dale RC, Doyle LW, Fahey M, George J, Hunt RW, McNamara L, Morgan C, Novak I, Olsen JE, Reid N, Rieger I, Whittingham K, Spittle AJ. *The Knowledge Translation of Early Cerebral Palsy (KiTE CP) Study: Implementing Screening Among a High-Risk Prospective Cohort of Australian Infants.* J Pediatr. 2024 May; 268:113949.

Breaking ground on endometriosis

New discoveries about the causes and presentation of endometriosis led by the Women's Gynaecology Research Centre are helping to shed light on the previously under-recognised disease.

It's a disease that one in nine women will encounter in their lifetime, but until recently, received little mainstream recognition.

Characterised by chronic pain and infertility, endometriosis symptoms can be diverse with diagnosis taking an average of seven years.

"In the modern era, this is really hard to believe and definitely unacceptable," says Deputy Director of the Women's Gynaecology Research Centre Professor Peter Rogers.

Prof Rogers, supported by a team of scientists and clinicians, is dedicated to understanding the causes and progression of the disease, and ultimately to devising more effective treatments.

The current "gold-standard" for diagnosis is laparoscopy: a surgery whereby a thin tube containing a video camera is used to examine the inside of the abdomen and pelvis. The wait for laparoscopy can be long, and the procedure potentially unnecessary if endometriosis is not detected.

Towards a better diagnostic tool

In response to the need for a less invasive, faster and less costly diagnostic tool, the team investigated whether a panel of plasma protein biomarkers could be identified to diagnose endometriosis*.

In collaboration with the Australian company Proteomics International, the study identified 10 plasma biomarkers across three models with one model successfully identifying early-stage endometriosis from the control group. While further analysis is required to determine if the findings can be applied to a wider population, the results may be the basis for a new tool for early diagnosis of endometriosis via a simple blood test.

"Women wait in pain for far too long. Imagine if right at the beginning, they could do the blood test," says Prof Rogers.

Determining recurrence

While receiving an accurate diagnosis is one concern for women at the beginning of their endometriosis journey, accepting that the disease may recur is another. There is no definitive study on recurrence rates but estimates between 5-70% have been reported.

“Understanding recurrence may help us to understand what causes the disease, what makes it more severe, and also help us to devise better treatments.”

This is critical, explains Prof Rogers, as the treatment for a woman who is at higher risk of recurrence may differ from that of a woman who is at lower risk.

In 2024, an observational study of 794 patients undergoing surgery for pelvic pain or endometriosis, led by Dr Sarah Holdsworth-Carson, showed that recurrence was associated with bowel lesions, adhesions and adenomyosis.

“Being able to identify women who are more likely to have recurrence means we can be looking out for symptoms. They can be getting more endometriosis focused check-ups.” says Prof Rogers.

The future of endometriosis research

Endometriosis research has developed in leaps and bounds over the span of Prof Rogers’ 45-year career, but particularly so in the past 10 years.

“The way medical research is moving, there’s a lot of incredibly powerful techniques and methodologies, including things like artificial intelligence. We really have more investigative tools than ever before,” he says.

Prof Rogers is optimistic about the future of endometriosis research.

“I think that we can see a path forward. We will see major changes in some of these non-fatal, but really costly chronic diseases like endometriosis, that have been ignored for too long.”

“The way medical research is moving, there’s a lot of incredibly powerful techniques and methodologies, including things like artificial intelligence. We really have more investigative tools than ever before”

— Prof Peter Rogers

*Holdsworth-Carson SJ, Chung J, Machalek DA, Li R, Jun BK, Griffiths MJ, Churchill M, McCaughey T, Nisbet D, Dior U, Donoghue JF, Montgomery GW, Reddington C, Girling JE, Healey M, Rogers PAW. Predicting disease recurrence in patients with endometriosis: an observational study. BMC Med. 2024 Aug 7;22(1):320.

*Schoeman EM, Bringans S, Peters K, Casey T, Andronis C, Chen L, Duong M, Girling JE, Healey M, Boughton BA, Ismail D, Ito J, Laming C, Lim H, Mead M, Raju M, Tan P, Lipscombe R, Holdsworth-Carson S, Rogers PAW. Identification of plasma protein biomarkers for endometriosis and the development of statistical models for disease diagnosis. Hum Reprod. 2025 Feb 1;40(2):270-279.

Rethinking cancer care for women

Radiotherapy following breast cancer treatment — is it necessary?

For women diagnosed with early-stage invasive breast cancer, breast conserving surgery followed by radiotherapy has long been the standard of care. Radiotherapy is used to reduce the risk of cancer returning in the treated breast by targeting microscopic disease that may not be visible through standard imaging techniques. While effective, radiotherapy is associated with side effects, long treatment courses and significant financial burden for both patient and the healthcare system. The challenge has been to determine which patients might avoid radiotherapy without compromising their outcomes.

Professor Bruce Mann, specialist breast surgeon and Director of the Combined Breast Service of the Women's and The Royal Melbourne Hospital, is the lead researcher of PROSPECT (Postoperative radiotherapy omission in selected patients with early breast cancer following preoperative breast MRI). The clinical trial* investigates whether Magnetic Resonance Imaging (MRI), the most sensitive imaging modality available for breast cancer detection, can be used to guide the safe omission of radiotherapy in carefully selected patients.

Women with hormone sensitive, unifocal invasive breast cancer confirmed by standard imaging, aged 50 years or older, were eligible for the trial. All underwent preoperative bilateral MRI. Where MRI revealed no additional abnormalities and pathology showed favourable tumour features with margins of at least 2mm, patients were offered standard treatment, which included endocrine therapy and surgery, without radiotherapy. All other patients received standard treatment plus radiotherapy. Both groups were closely monitored through follow-up.

MRI identified additional malignancies in 11% of recruited patients, disease that would have been missed with conventional imaging alone. Among the group who did not receive radiotherapy, only 1% of patients in the group experienced recurrence within five years of surgery.

PROSPECT suggests that women with unifocal breast cancer on MRI and favourable pathology results can safely omit radiotherapy, said Prof Mann.

This new approach to treatment will benefit not only patients but may reduce the economic burden on the healthcare system arising from breast cancer treatment.

Risk-reducing surgery in women at high-risk of gynaecological cancer

Women identified as high-risk for gynaecologic cancer (ovarian, endometrial, breast) due to family history, presence of BRCA genes etc, may be advised to undertake treatments to reduce their risk. Dr David Wrede, consultant gynaecologist at the Women's says

"The risks are quite clear when it comes to certain genetic variations or mutations. We know that women with a BRCA1 mutation have a 44 per cent chance of developing cancer in their lifetime, while those with a BRCA2 mutation have about a 17 per cent chance".

The most effective risk-reduction method is the removal of the fallopian tubes, ovaries, and/or uterus. For difficult to detect cancers such as ovarian cancer, which has a poor survival rate due to late diagnosis, prevention is infinitely better than cure, with surgery reducing a woman's risk by approximately 98%.

*Gregory Bruce Mann, Anita Rohini Skandarajah, Nicholas Zdenkowski, Janemary Hughes, Allan Park, Dennis Petrie, Karinna Saxby, Sean M Grimmond, Anand Murugasu, Andrew J Spillane, Boon H Chua, Heath Badger, Helen Braggett, Val Gebski, Arlene Mou, John P Collins, Allison K Rose. Postoperative radiotherapy omission in selected patients with early breast cancer following preoperative breast MRI (PROSPECT): primary results of a prospective two-arm study. Lancet 2024; 403: 261–70.

Where BRCA genes are involved, Dr Wrede says

"We recommend that women with these mutations undertake some form of preventative surgery – ideally before age 40 for BRCA1 and before age 45 for BRCA2.

These surgeries, however, result in sterilisation and may induce early menopause which increases morbidity, notably cardiovascular disease, bone density deterioration and early death, when performed before the age of 45.

To investigate the safety and outcomes of risk-reduction surgery and the incidence of occult cancer (cancer of unknown primary origin) in asymptomatic, high-risk women following risk-reduction surgery, Dr Wrede and Associate Professor Orla McNally, Director of the Oncology and Dysplasia Service and their colleagues at the Women's, reviewed the records of patients referred to the Service between 2008 – 2024*.

Risk-reduction surgery was found to be safe with low complication rates, although these rates increased if a hysterectomy was performed simultaneously. Occult cancer was detected in approximately 3% of women who underwent risk-reduction surgery. This level is significant albeit low. Of these women, 55% had high-grade serous cancer while 35% had endometriod endometrial adenocarcinoma, all were asymptomatic at the time of surgery. Genetic mutations were present in 90% of these women.

While prophylactic surgery for high-risk women is advised, it's important to consider the timing and type of intervention and that post-operative consequences require planning and a long-term strategy for maintaining a women's quality of life.

"It's important to consider the timing and type of intervention and that post-operative consequences require planning and a long-term strategy for maintaining a women's quality of life" — Dr David Wrede

*Outcomes of risk-reducing surgeries in women at high risk for gynaecological cancers: A tertiary center experience. Danielle Mor-Hadar Rosemary McBain, Orla McNally, Yael Naaman, Abby Grant, Fiona Chan, Niveditha Rajadevan, Estefania Vicario, C David Wrede. Surgical Oncology 58 (2025).


Research
excellence

The Menopause Series – Lancet

Professor Martha Hickey is a Consultant in Gynaecology and Head of Menopause Services at the Royal Women's Hospital.

Menopause is the final phase of a women's reproductive life marked by the cessation of periods and a decline in the production of ovarian hormones, primarily oestrogen. A woman's experience of menopause is highly individual; some women have few or no symptoms while others have debilitating symptoms that impair their quality of life. It's a normal part of aging which women should be able to navigate without stigmatisation and overmedicalisation.

For the first time, a world-leading medical journal (Lancet) has dedicated a four-paper series to address the menopause transition. Experts, led by the Women's Professor Martha Hickey, are calling for change in how we think and talk about menopause and empower women going through the transition.

"The misconception that menopause is always a medical issue that signals a decline in a woman's physical and mental health should be challenged across the whole of society," Prof Hickey says.

"Changing the narrative to view menopause as part of healthy ageing may help more women to navigate this life stage and reduce fear and trepidation amongst those who have yet to experience it."

Many women feel unsupported during the transition. The authors recognise how gendered ageism may contribute to negative experiences of menopause and call for reduced stigma and greater recognition of the value and contribution of older women to society.

For those women who do experience menopausal symptoms a range of therapies are available. These include hormonal and non-hormonal treatments, cognitive behavioural therapy and hypnosis.

Prof Hickey says, "Women need accurate, consistent and impartial information to make informed decisions that are right for them over the menopause transition".

"It's time for menopause to be recognised as a nuanced, complex life stage which, with the right support, access to treatments and societal attitudes, needn't be experienced negatively,".

The Lancet series reviews early menopause, the impact of cancer on menopause, mental health during the transition and espouses an empowerment model for women going through menopause.

"The misconception that menopause is always a medical issue that signals a decline in a woman's physical and mental health should be challenged across the whole of society"

— Prof Martha Hickey

Hickey M, Basu P, Sassarini J, Stegmann ME, Weiderpass E, Nakawala Chilowa K, Yip CH, Partridge AH, Brennan DJ. *Managing menopause after cancer.* Lancet. 2024; 403(10430):984-996.

Hickey M, LaCroix AZ, Doust J, Mishra GD, Sivakami M, Garlick D, Hunter MS. *An empowerment model for managing menopause.* Lancet. 2024; 403(10430):947-957.

Mishra GD, Davies MC, Hillman S, Chung HF, Roy S, Maclaran K, Hickey M. *Optimising health after early menopause.* Lancet. 2024; 403(10430):958-968.

Brown L, Hunter MS, Chen R, Crandall CJ, Gordon JL, Mishra GD, Rother V, Joffe H, Hickey M. *Promoting good mental health over the menopause transition.* Lancet. 2024; 403(10430):969-983.

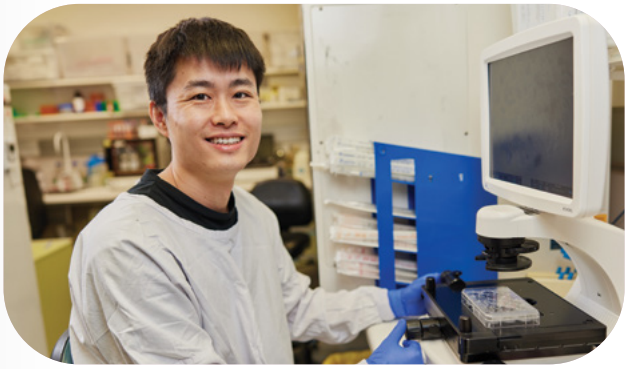
Models in research

At the Women's, research takes many forms, but at its heart, it's about using the right models to better understand and improve women's health.

Clinical models of care focus on how health services are delivered by examining effectiveness, safety, and patient experiences. **Laboratory research models**, by contrast, explore the biological mechanisms underlying health conditions, forming the basis for future treatments.

Both approaches are essential. Some studies at the Women's involve patients directly, evaluating models of care. Others use lab-based methods to investigate fertility, cancer, or pregnancy complications.

This year's report showcases two studies that highlight how both clinical and laboratory models are driving better care, deeper understanding, and improved health outcomes for women.



Decoding infertility: a research model for embryo implantation failure

For many women experiencing infertility, the cause remains unexplained, even when everything else seems normal. One hidden factor could be a condition known as poor endometrial receptivity, where the lining of the uterus (the endometrium) doesn't respond properly to support the early stages of pregnancy.

Dr Wei Zhou and colleagues at the Women's have been investigating how changes in the uterine lining can lead to failed embryo implantation. Their research* focused on a molecule called miR-124-3p, which helps regulate how cells behave. In previous studies, the team discovered that levels of this molecule were unusually high in women with unexplained infertility.

To understand how miR-124-3p affects fertility, the team generated the world's first mouse model that allows timely and reversible control of miR-124-3p in the uterine lining. This breakthrough makes it possible to mimic the changes in miR-124-3p seen during the menstrual cycle in women with infertility and test its consequences on embryo implantation. The results were clear, too much of this molecule made the uterine lining less able to support a pregnancy, even though the embryos themselves were healthy.

Further tests using human cells in the lab showed similar effects. High levels of miR-124-3p interfered with the ability of embryo cells to stick to the uterus lining, which is essential for a successful pregnancy.

These findings suggest that elevated miR-124-3p could be a key reason why some women struggle to conceive. Dr Zhou hopes this research will lead to better tests to identify this issue and the development of treatments that could improve implantation and support a healthy pregnancy for more women in the future.

COSMOS delivers better outcomes and lower costs

Caseload midwifery is where a woman receives care from a primary midwife throughout pregnancy, labour, birth and the postnatal period and has been widely recommended in Australia. Many hospitals have since adopted this model, which ensures consistent support from a known midwife, with backup provided by another familiar midwife when needed.

While early studies demonstrated promising clinical outcomes, it wasn't always clear how satisfied women were with this approach. To address this question, Professor Della Forster and her team at the Women's Maternity Services, conducted the landmark COSMOS randomised controlled trial, comparing caseload midwifery to standard maternity care. The study* evaluated women's experiences and outcomes across the entire maternity journey.

The findings were significant. Women in the caseload midwifery group were less likely to require a caesarean section, pain relief during labour, or an episiotomy. Their babies were also less likely to be admitted to special care nurseries. Importantly, there were no differences in safety outcomes for mothers or babies between the two groups which highlighted that reduced intervention did not compromise care.

Beyond clinical outcomes, the study also showed that women receiving caseload midwifery reported higher satisfaction with their care throughout pregnancy, birth, and postpartum. While this particular publication focused on outcomes and satisfaction, parallel research from Prof Forster and colleagues, found that this model of care reduced costs for public funders when used for low-risk women, without increasing costs to public hospitals.

These findings add to the growing evidence that caseload midwifery offers a safe, satisfying, and cost-effective approach to maternity care.

*Zhou W, Van Sinderen M, Rainczuk K, Menkhorst E, Sorby K, Osianlis T, Pangestu M, Santos L, Rombauts L, Rosello-Diez A, Dimitriadis E. Dysregulated miR-124-3p in endometrial epithelial cells reduces endometrial receptivity by altering polarity and adhesion. Proc Natl Acad Sci U S A. 2024 Oct 8;121(41): e2401071121.

*Continuity of care by a primary midwife (caseload midwifery): a cost analysis using results from the COSMOS randomised controlled trial. Gynecology and Obstetrics Clinical Medicine 2024;4: e000008.

Next generation researchers

Dr Patrick Tan: leading innovation in obstetric anaesthesia

Dr Patrick Tan is a Specialist Anaesthetist at the Women's, widely recognised for his pioneering research and leadership in obstetric anaesthesia. After completing his MBBS and BMedSc at the University of Melbourne in 2010, he earned his Fellowship from the Australian and New Zealand College of Anaesthetists (FANZCA) in 2019.

Early in his career, Dr Tan's innovative work on high-flow nasal oxygen therapy in obstetrics earned him the prestigious Kevin McCaul Prize from the Australian Society of Anaesthetists - the first time a Women's trainee had received the honour. This was followed by the Felicity Reynolds Prize from the UK's Obstetric Anaesthetists' Association, further recognising the impact of his work.

Dr Andrew Buettner, Director of Anaesthetics and Women's Health says 'Pat's work in high-flow humidified nasal oxygen therapy represented a significant advance in obstetric anaesthesia and demonstrated his ability to translate research into tangible patient benefits'.

Dr Tan has a longstanding interest in research, having completed a laboratory-based thesis as an undergraduate in Hong Kong on genetic biomarkers in acute coronary syndrome. Now completing a PhD, his focus is on bridging research gaps in pregnancy-related anaesthesia to improve safety and outcomes for women.

Dr Buettner says 'Pat is not only a researcher, with multiple high-impact publications and prestigious awards, but also a mentor who supports future anaesthetists with his depth of knowledge and guidance'.

These skills were evident during the COVID pandemic with Dr Tan leading the Women's response and implementing initiatives for massive transfusion education. He continues to shape the future of obstetric anaesthesia through evidence-based care and a strong commitment to clinical excellence.

"Research challenges and inspires my academic curiosity in a way clinical work alone cannot. Every discovery is a step toward safer, better care for women." — Dr Patrick Tan

Tan PCF, Peyton PJ, Deane A, Unterscheider J, Dennis AT. Pre-oxygenation using high flow humidified nasal oxygen or face mask oxygen in pregnant people - a prospective randomised controlled crossover non-inferiority study (The HINOP2 study). Int J Obstet Anesth. 2024 Nov; 60:104236.

Dr Kate Hodgson: improving outcomes for vulnerable newborns

Kate's association with The Women's began as a student while she was studying medicine at the University of Melbourne. As part of her degree, she completed a research project with Professor Lex Doyle, a central figure in global neonatal research, which inspired her to pursue a career as a neonatologist. After completing her medical degree and neonatal training, Kate undertook a fellowship in Toronto, Canada. She returned to the Women's as a trainee registrar and later a fellow and completed a PhD investigating nasal high-flow therapy to support the placement of breathing tubes in newborns.

Professor Peter Davis, Director of Neonatal Medicine at The Women's, describes Kate as a 'Women's hospital success story'. Having progressed from a student to a neonatology consultant, Kate is now leading several important research projects and has been awarded a prestigious NHMRC Investigator Grant.

Kate is committed to providing collaborative, family-centred care for preterm infants and feels fortunate to work alongside a dedicated team of clinicians and researchers. Together, they strive to deliver the highest quality care to babies and their families. The research she is leading promises to have a lasting impact on the lives of vulnerable newborns and is poised to shape the future of neonatal care on a global scale.

'It's through research that we are able to discover the best treatments to care for newborn babies born preterm or sick'.

— Dr Kate Hodgson

Hodgson KA, Selvakumaran S, Francis KL, Owen LS, Newman SE, Kamlin COF, Donath S, Roberts CT, Davis PG, Manley BJ. Predictors of successful neonatal intubation in inexperienced operators: a secondary, non-randomised analysis of the SHINE trial. Arch Dis Child Fetal Neonatal Ed. 2024 Dec 20;110(1):75-78.

Dr Hector Georgiou: advancing fertility research with global impact

Dr Hector Georgiou is a Fertility Specialist at the Women's Reproductive Services Unit and an Honorary Clinical Senior Lecturer at the University of Melbourne. Dr Georgiou completed his training in obstetrics and gynaecology in the UK, followed by highly competitive subspecialist training in reproductive medicine. He also holds a PhD from Imperial College London, where his research focused on progesterone signalling in the myometrium, in the context of preterm and term labour. This work has led to multiple peer-reviewed publications and contributions to international clinical guidelines.

At the Women's, Dr Georgiou has continued to build on his research strengths, with a focus on translating findings into clinical practice. He is currently leading a pilot cohort study exploring the feasibility of a progesterone-modified natural protocol for frozen embryo transfer and is planning a randomised controlled trial to further this work.

In addition to his clinical and research responsibilities, Dr Georgiou is mentoring junior colleagues on a systematic review examining endometriosis-associated infertility, demonstrating his commitment to fostering the next generation of researchers.

His research has been widely cited in respected medical journals and continues to shape evidence-based IVF practices worldwide. Dr Georgiou exemplifies the value of clinician-researchers in bridging the gap between discovery and patient care.

"What drives me is seeing research translate into real-world clinical practice, making a tangible difference in the lives of patients."

— Dr Hector Georgiou

Churchill A, Georgiou E, Abruzzo V, Polyakov A, Teh WT. Feasibility of a Progesterone-Modified Natural Protocol for Frozen Embryo Transfer: Protocol for a Pilot Cohort Study. JMIR Res Protoc. 2025 Apr 11;14: e66579.

Dr Teck Phui Chua: leveraging microbiology to advance women's health

Dr Teck Phui Chua is an early career researcher whose journey began at the Women's through a science undergraduate placement. Inspired by her biochemistry and microbiology classes, she pursued Honours and a PhD with the Women's Centre for Infectious Diseases, focusing on antimicrobial resistance in Mycoplasma genitalium.

Driven by curiosity and a passion for discovery, Dr Chua is drawn to the process of asking scientific questions and using advanced tools to explore the unseen natural world. Her PhD, completed in early 2025, was exceptionally successful resulting in four published papers (one in Lancet Microbe) with two more in progress. Her work focused on defining specific mechanisms of antibiotic resistance. This will lead to the development of new tools to help combat treatment failure, such as novel diagnostic tests.

Dr Gerald Murray, Senior Scientist and Teck's PhD supervisor, describes her as "a highly skilled researcher with exceptional attention to detail and strong bioinformatics capabilities." He notes her impressive ability to master new methodologies and contribute meaningfully to a technically demanding field.

Teck is committed to a future in academic research, particularly in microbiology and women's health, where her work can have a real-world impact on human health. Her achievements demonstrate the vital contribution early career researchers bring to complex scientific challenges.

"It's a privilege to ask questions, test ideas, and contribute knowledge that could one day improve people's lives."

— Dr Teck Phui Chua

Chua, Teck-Phui and Vodstrcil, Lenka A. and Murray, Gerald L. and Plummer, Erica and Jensen, Jørgen S. and Unemo, Magnus and Chow, Eric PF and Low, Nicola and Whiley, David M. and Sweeney, Emma L. and Hocking, Jane S. and Danielewski, Jennifer A. and Garland, Suzanne Marie and Fairley, Christopher K. and Zhang, Lei and Bradshaw, Catriona and Machalek, Dorothy A., Evolving Patterns of Macrolide and Fluoroquinolone Resistance in Mycoplasma Genitalium: An Updated Global Systematic Review and Meta-Analysis.

Clinical trial research

Clinical trial research

As Australia's largest specialist hospital for women and babies, the Women's is uniquely positioned to lead national and international clinical research including clinical trials in maternal and neonatal health.

Our Women's program of clinical trials has given rise to advanced treatment protocols and therapies which have resulted in overall better health for women, safer pregnancies, healthier births, and better maternal and neonatal health globally.

The specialised needs of women, pregnant women and babies can only be addressed by their participation in clinical trials. This ensures medical advancements are tailored to their needs, driving meaningful improvements in women's, maternal, and neonatal healthcare.

We are indebted to the women, babies and families who participate in our clinical trials. Without their courage and support, the advances that have been made would not have been possible.

Below are summaries of recent clinical trials conducted at the Women's. The titles of these trials may seem unusual or surprising, as they are often acronyms of longer scientific titles that can be cumbersome for regular use.

Rescue ICSI trial

Researcher: Associate Professor Wan Tinn Teh

A small but significant number of IVF cycles result in either no eggs being fertilised or very low fertilisation rates. This means that despite going through the entire IVF process, some women end up with no embryos to transfer, and therefore no chance of pregnancy in that cycle. This can be incredibly distressing and costly, with no immediate solution available. We are trialling a procedure called rescue ICSI, where sperm is directly injected into the egg the day after standard fertilisation has failed. By doing this, we hope to "rescue" some of these cycles and give patients another chance at embryo development and pregnancy. The goal of the trial is to find out how often rescue ICSI can lead to a successful pregnancy for women who otherwise would not have had that opportunity in their current IVF cycle.

Progesterone modified natural FET trial

Researcher: Associate Professor Wan Tinn Teh

Despite widespread use of Frozen Embryo Transfer (FET), there is still no clear consensus on the best way to prepare the endometrium for embryo implantation. One approach is the natural cycle, where the woman ovulates on her own, but timing embryo transfer accurately can be challenging. Another is the artificial cycle, which uses hormone replacement therapy, but this carries an increased risk of pregnancy complications due to the absence of a corpus luteum (ovulation). This study investigates whether adding progesterone at the right time during a natural cycle (a Progesterone-Modified Natural Cycle), can be a simple and effective way to support the endometrium for embryo implantation. To assess the feasibility of this approach, 20 women with regular cycles will be monitored for ovulation. The findings will determine whether this treatment could be adopted in clinical practice.

TUBA WISP

Researcher: Professor Martha Hickey

Ovarian Cancer research: TUBA WISP (**TUB**ectomy with delayed oophorectomy as **A**lternative for risk-reducing salpingo-oophorectomy in high-risk **W**omen to assess the **S**afety of **P**revention) is an international clinical trial investigating ovarian cancer prevention in women with BRCA1/2 mutations. It compares whether removing just the fallopian tubes is as effective as removing both the tubes and ovaries (oophorectomy). Funded by the MRFF and Tour de Cure, the study is active across 15 countries, including Australia.

Replanting the birthing trees

Researchers: Jenny Ryan and Prof Cath Chamberlain (Uni Melb)

First Nations People Research: The Women's partnered with *Replanting the Birthing Trees* (RBT), an Aboriginal-led research project from the University of Melbourne aimed at transforming cycles of intergenerational trauma into healing for Aboriginal and Torres Strait Islander families in the first 2000 days of life. The project centres on cultural safety and social and emotional wellbeing in perinatal care. Over 250 staff at the Women's completed RBT cultural safety training, with nine staff undertaking additional training as *Wellbeing Champions* to support ongoing impact and embed culturally responsive, trauma-informed care across maternity and perinatal services.

Safety of anaesthetics

Researcher: Dr Patrick Tan

Obstetric Anaesthetic Research: This clinical trial aims to improve the safety of general anaesthesia for pregnant patients with a high BMI by comparing oxygen delivery

methods. Researchers are testing whether starting high-flow nasal oxygen before anaesthesia improves outcomes. This trial is supported by the Australian and New Zealand College of Anaesthetists (ANZCA) and our industry partner, Fisher & Parker Healthcare.

PLATIPUS trial

Researcher: Dr Clare Whitehead

Perinatal Research: **PLATIPUS** is an adaptive platform trial focused on improving outcomes for women at risk of preterm birth and their babies. It includes two domains: **PROMOAT**, which investigates the best antibiotics for preventing infection in women with preterm prelabour rupture of membranes (PPROM), and **BABYCCINO**, which explores the optimal caffeine dose to prevent apnoea in preterm infants born before 32 weeks. Both trials are supported by NHMRC grants.

ASPRE-T study

Researcher: Associate Professor Ricardo Palma-Dias

Imaging Research: The Women's is one of two hospitals in Australia participating in the ASPRE-T study (Aspirin versus placebo in twin pregnancies for preeclampsia prevention: a multicentre, randomised, double-blind, placebo-controlled trial), which involves 43 hospitals in multiple countries. The trial will establish if aspirin is beneficial in preventing pre-eclampsia.

REALITY

Researcher: Professor Shaun Brennecke

Pregnancy Research: Fetal growth restriction (FGR) is a major cause of perinatal morbidity and mortality. The maternal serum ratio of soluble fms-like tyrosine kinase (sFLT-1) and placental growth factor (PlGF) is an indicator of placental insufficiency in the latter part of pregnancy, which may cause FGR. The usefulness of this test in risk stratification of pregnant women with signs and symptoms of preeclampsia or diagnosed preeclampsia in current clinical practice, is being tested in a multicentre, prospective, observational study being conducted at the Women's.

ESPRESSO

Researcher: Professor Shaun Brennecke

Pregnancy Research: ESPRESSO is a clinical trial into the prevention of preeclampsia, a very serious type of high blood pressure in pregnancy. The study investigates whether esomeprazole (Nexium) improves pregnancy outcomes for women at high risk of preeclampsia. Women at higher risk of preeclampsia are recruited in early pregnancy (between 11 to 13+6 weeks) and will take either esomeprazole or placebo every day until the baby's birth. This project aims to improve outcomes for women at high risk of preeclampsia and reduce risk to mother and babies.

The Women's homebirth program

Researcher: Dr Rebecca Szabo

Translational simulations led by the Gandel Simulation Service helped assess newborn resuscitation equipment for home births. By comparing the T-piece (hospital standard) with the self-inflating bag (hospital back-up), the team identified key improvements. These findings were implemented into the Women's Homebirth Program before its launch, enhancing safety and aligning midwifery practice with current evidence.

CIRCUIT

Researcher: Dr Sarah Price

CIRCUIT (Closed-loop Insulin delivery in Type 1 Diabetes Pregnancies) is investigating whether automated insulin delivery (AID) improves outcomes for mothers and babies compared to standard care. Traditional insulin and glucose monitoring methods haven't significantly reduced neonatal complications or eased self-care burdens. Funded by the MRFF, the Australian arm of the trial randomised pregnant women to receive either standard care or AID, with detailed data on glucose levels and birth outcomes now being analysed.

MAMBO

Researcher: Dr Sarah Price

MAMBO (Maternal Metabolic Health and Mother and Baby Health Outcomes) is a study focused on improving preconception care for women with metabolic conditions such as obesity, diabetes, and hypertension—key risk factors for poor health outcomes in mothers and their children. The goal is to ensure all Australian women can access care that supports long-term wellbeing. So far, 488 women have been recruited from the Women's and Frances Perry House, with a target of 500 participants. Funded by a Ramsay Hospital Research Foundation Translational Challenge Grant, the study will help identify those at greatest risk and inform future care.

Publications

A total of 298 papers were published in peer reviewed medical journals by Women's researchers in 2024.

The publications below have been selected to highlight the quality of our research at a national and international level. The papers have been selected based on the quality of the journal in which they are published. The journals listed have an 'impact factor' greater than 10, which mean they are in the top two per cent of all journals. Impact factor (as determined by InCites Journal Citation Reports) is a measure of the frequency with which the 'average article' in a journal has been cited in a particular year or period.

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Riddell MA, Vallely LM, Garland SM, et al. *Point-of-care testing and treatment of sexually transmitted and genital infections to improve birth outcomes in high-burden, low-resource settings (WANTAIM): a pragmatic cluster randomised crossover trial in Papua New Guinea.* Lancet Glob Health. 2024 Apr;12(4): e641-e651.

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Grants

Australian Research Council (ARC)

Guy R, Broom A, Whiley D, Bradshaw C, Applegate T, Treloar C, Wiseman V, Huston W, Williamson D, Kaldor J, Vallely A, Hocking J, Regan D, Donovan B, Kelly-Hanku A, Murray G. Industrial Transformation Research Program. *Research Hub to Combat Antimicrobial Resistance.* $10,000,000; 2020-2024

National Health and Medical Research Council (NH&MRC)

Clinical Trials and Cohort Studies Grants

Palmer, S, Whitehead, C et al. *PROTECT Me: Assessing Antenatal Maternal Melatonin Supplementation in Fetal Growth Restriction to Improve Neurodevelopmental Outcomes.* $1,607,081; 2020-2024

Brown S, Gartland D, Giallo R, Carlin J, Gold L, Hegarty K, Sanci L, Fogarty A, Herrman H, Macmillan H. *Uncovering the hidden impacts and costs of exposure to intimate partner violence in childhood: a 20-year cohort study.* $ 1,595,473; 2022-2024

Mishra G, Hickey M, Dobson A, Wilson L, Doust J, Tooth L, Moss K, Buckley L. *Maternal and early life origins of adolescent menstrual disorders and pelvic pain.* $ 1,475,456; 2022-2027

Said J, Groom K, Crowther C, Doyle L, Karahalios A. PRECeDe: *Prevention of neonatal Respiratory morbidity with antenatal corticosteroids prior to Elective Caesarean section in women with Diabetes: A Randomised triaDE.* $3,409,951; 2022-2027

Stark M, Collins C, Sullivan T, Andersen C, Morton R, Marks D, Owen L. *The effect of transfusion with washed versus unwashed red blood cells to modify neonatal morbidity and mortality: A randomised controlled trial.* $2,071,936; 2020-2024

Whitehead, C., Manley, B., Groom, K., Morris, J., Vogel, J. Giles, M., Newnham, J., Cruz, M., Lee, K. and Tong, S. *PROMOAT: an adaptive platform trial of antibiotic therapy to improve outcomes from preterm prelabour rupture of membranes* $4,388,940.50. 2024-2029

Roberts, C., Manley, B., Buckmaster, A., Davis, P., Dargaville, P., Dalziel, K., O'Shea, J., Owen, L., Davies-Tuck, M. and Roehr, C. *A Surfactant Treatment Method for Modern Neonatal Care: SURFactant by SUPraglottic Airway (The SURFSUP RCT).* $1,707,835.00; 2022-2027

Centre for Clinical Research Excellence

Teede H, Norman R, Mishra G, Boyle J, Hart R, Mol B, Moran L, Hickey H, Laven J, Rodgers R. *Centre of Research Excellence - Women's Health in Reproductive Life (CRE WHiRL).* $2,499,056; 2020- 2024

Canfell K, Brotherton J, Saville M, Vallely A, Garland S, Bateson D, Guy R, Simms K, Whop L, Kaldor J. *Centre for Research Excellence in Cervical Cancer Control (C4).* $2,500,000; 2023-2027.

Mazza D, Black K, Bateson D, Norman W, Mishra G, Fisher J, Grzeskowiak L, Edvardsson K, Tarzia L, Cameron S. *SPHERE - The Centre of Research Excellence in Women's Sexual and Reproductive Health in Primary Care.* $2,500,000; 2023-2028.

NHMRC-NIHR Collaborative Research Grant

Roberts, C., Manley, B. J., Taylor, J. E. Beesley, C., Dalziel, K. M., Davis, P. G, Hunt, R. and Gale, C. P. *The neoGASTRIC trial: Avoiding routine gastric residual volume measurement in neonatal critical care, a multi-centre, randomised controlled trial.* $739,020.10; 2022-2025

Ideas Grants

Jordan S, Wilson L, Hickey M. *Hysterectomy, Oophorectomy and Long-term chronic Disease - the HOLD study.* $690,000; 2021-2024

Ingram W, Amir L. *A paradigm shift in lactational mastitis: Exploration of immune factors in breast milk: cohort study of women at high and low risk mastitis.* $723,935; 2022-2024

Menkhorst E, Dimitriadis E, Nicolaides K, Zhou W. *Uncovering and detecting placental dysfunction in late-onset preeclampsia.* $1,222,195; 2023-2025

Tarzia L., Hegarty, K., Khalsa, S., O'Doherty, L., Van Der Kolk, B. and Cullen, P. *MeAsuring the beNefits of TRAuma-sensitive yoga for survivors of sexual violence in adulthood (MANTRA Study).* $639,804; 2023-2027.

Melton P, Moses, Blangero, Brennecke, S. *Epigenetic Biomarker Discovery for Cardiovascular Disease Risk Stratification of Women Following Preeclampsia.* $1,275,101; 2022-2026

Investigator Grants

Garland S. Leadership 3. *Improving Reproductive Health Through Infectious Diseases Research.* $1,957,108; 2021-2025

Hickey M. Leadership 2. *Better evidence and new tools to improve health after surgical menopause.* $1,855,260; 2021-2025

Lensen S. Emerging Leadership 1. *Towards evidence-based use of IVF add-ons in Australia.* $645,205; 2021-2025

Price S. *Improving maternal metabolic health prior to pregnancy to prevent metabolic disease in the offspring.* $650,740; 2022-2026

Scott C. *Super-Responders and Super-Survivors – how to dramatically improve cancer outcomes.* $2,372,570; 2022-2027

Manley B. I*mproving Outcomes for Preterm Infants Through Randomised Clinical Trials.* $2,354,074; 2023-2027

Cheong J. *Optimising lifelong health and development for our most immature newborns.* $2,505,432; 2023-2027

Owen L. *Lungs for life: a programme of clinical trials to improve respiratory outcomes for premature babies.* $1,345,834; 2023-2027

Hodgson, K. *Improving respiratory outcomes for preterm infants.* $496,224; 2024-2028

Partnership Projects

Koplin J, Clifford V, Amir L, Fisher J, Dalziel K, Price S, Tottman A, Rumbold A, Perrett K, Klein L. *Pasteurised donor human milk supplementation for term babies.* $1,126,309; 2023-2028

Project grants

Chamberlain C, Atkinson C, Herrman H, Campbell S, Lovett R, Canuto K, Nicholson J, Segal L, Mohamed J, McMahon M. *Healing the past by Nurturing the Future: perinatal awareness, recognition, assessment and*

support for Aboriginal and Torres Strait Islander parents experiencing complex trauma – Phase 3. $1,100,000; 2022-2026

Special Initiative: Mental Health

Palmer V, Gunn J, Pikis J, Patton G, Eades S, Wheeler A, Kisely S, Hiscock H, Panellis C, Maybery D, Lautenschlager N, Almeida O, Sanci L, Larkins S, Wright M, Morgan V, Galletly C, Brophy L, Hegarty K, O'Donnell M, et al. *ALIVE - A National Research Translation Centre to implement Mental Health Care at Scale*; $10,000,000; 2021-2026

Targeted Research

Forster, D., Shafiei, Kane, S., Callander, E., McLachlan, H., Nguyen, C., Hyde, R., Newton, M., Cheong, J. and Whitburn, L. *Does offering a combination of video health and face-to-face visits for antenatal care result in improved patient experience and is it as safe as standard (face-to-face) care? A co-designed non-inferiority randomised controlled trial.* $999,585.40. 2024-2028

Medical Research Future Fund (MRFF)

Emerging Priorities and Consumer Driven Research

Rogers P, Healey M, Holdsworth-Carson S, Donoghue J, Frawley H, Cheng C. *Improving treatment and diagnosis of endometriosis.* $3,929,234; 2020-2025

Teede H, Geelhoed G, Arnott L, Boyle J, Byles J, Chambers G, Clifton V, Frayne J, Glover K, Hickey M, Hart R, Larkins S, Loxton D, Makrides M, Mishra G, Nagle C, Nippita T, Perz J, Walker S, Zaman S. *National Women's Health Research, Translation and Impact Network (WHRTN).* $5,000,000; 2020-2024

Clinical Trials Activity

Said J, Groom K, Crowther C, Morris J, Doyle L, Forster D, Zeps N, Harding J, Henry A, Whitehead C. International Clinical Trials Collaborations. *The C*STEROID Trial: An international, randomised placebo-controlled trial to determine the effect of antenatal corticosteroids on newborn health when given prior to planned caesarean section birth from 35+0 to 39+6 weeks of pregnancy.* $2,151,495; 2021-2025

Tingay, D., Owen, L., Davis, P., van Kaam, A., Kirpalani, H., Kamli, C., Gill, A., Keszler, M., Courtney, S. and Orsinis, F. *A randomised control trial of positive end-expiratory pressure levels during resuscitation of preterm infants at birth (The POLAR Trial).* $1,387,653.75; 2019-2025

Hickey, M., Fox, S., Webb, P., James, P., Cohen, P., Scott, C., Powell, S. Brand, A., Oehler, M., Salomon, C., De Hullu, J. and McNally, O. *Salpingectomy with delayed oophorectomy to prevent ovarian cancer (TUBA WISP II).* $2,023,568.40; 2024-2029

Whitehead, C., Davis, P., Giles, M., Groom, K., Hodgson, K., Lui, K., Mahar, R., Manley, B., McKinley, C., Morris, J., Newnham, J., Palmer, K., Stark, M., Vogel, J. and Webb, S. PLATIPUS: a platform for adaptive trials in perinatal units. $3,998,773.00; 2024-2029

Clinical Translation and Commercialisation

Theda C, Navi Medical Technologies. *Safer care for critically ill children: clinical translation of a new medical device to place and monitor paediatric central vascular catheters.* $1,239,187; 2022-2024

Preventative and Public Health Research

Chamberlain C, Marriott R, Langton M, Gray P, Krakouer J, Atkinson C, Canuto K, Herrman H, Kendall S, McLachlan H, Segal L, Walker S, Skouteris H, Forster D, Fisher J, McCalman P, Bundle G, Elliott A, Gliddon J, et al. Replanting the birthing trees to support First Nations Parents and Babies. $4,999,905; 2022-2025

Forster D, Kane S, McLachlan H, Jacobs S, Shafiei T, Nguyen C, Nguyen T. Exploring the impact of midwife-led group antenatal care on caesarean section rates and infant health: a multi-site randomised controlled trial. $1,284,106; 2021-2026

Giles M, Kollmann T, Davey M, Amenyogbe N. The protective effect of maternal immunisation on obstetric outcomes: characterising the underlying mechanisms and impact on newborn immune function. $1,146,489; 2021-2025

McLachlan H, Forster D, Kane S, Sandall J, Shafiei T, Cuzzilla R, Shiell A, Nguyen C, Newton M, Kingsley M. Exploring the impact of caseload midwifery on preterm birth among vulnerable and disadvantaged women: a multi-centre randomised controlled trial. $1,598,496; 2020-2024

Spittle, A. Tele-rehabilitation for early intervention to improve neurodevelopmental outcomes of infants born preterm and their patients' wellbeing: a randomised controlled trial. $1,819,842; 2020-2024

McLachlan H, Forster D, Kane S, Sandall J, Shafiei T, Cuzzilla R, Shiell A, Nguyen C, Newton M, Kingsley M. *Exploring the impact of caseload midwifery on preterm birth among vulnerable and disadvantaged women: a multi-centre randomised controlled trial.* $1,598,496; 2020-2024

Spittle, A. *Tele-rehabilitation for early intervention to improve neurodevelopmental outcomes of infants born preterm and their patients' wellbeing: a randomised controlled trial.* $1,819,842; 2020-2024

Primary Health Care Research

Hegarty, K., Boyle, D., Chondros, P., Cullen, P., Fiolet, R., Gold, L., Hooker, L., Johnson, C., Kye-Onanjiri, M., Manski-Nankervis, J., McMorrow, R., Sanci, L., Satyen, L., Tarzia, L. and Vaughan, C. *Promoting Safer Families: Strengthening primary care to sustainably address domestic and family violence.* $2,638,296.90; 2024-2028

Indigenous Health Research

Bailey S, Finlay SM, Mitchell F, Larsen P, Baur L, Dickson ML, Grant JM, Forster DA, Wright DC, Springall T. *Decolonising lactation care to support the initiation and maintenance of breastfeeding among First Nations women.* $973,863; 2023-2025

Clinician Researchers

Jayasinghe Y, Anazodo A, Sullivan M, Orme L, Zacharin M, McCarthy M, Stern C, Lantsberg D, Anderson R, Gomez-Lobo V, Yano J, Winstanley M, Super L, Lockwood L, Heath J, Slonim M, Rozen G, Yazdani A, et al. *The Australian New Zealand Oncofertility Clinical Trials Network.* $2,999,970; 2021-2025

Whitehead C, Manley B, Groom K, Davis P, Lee K, Mol B, Newnham J, Webb S, Morris J, Forster D, Lui K, Cheong J, Palmer K, Kumar S, Gordon A, Stark MJ, Strunk T, Dargaville P, Unger H, Dalziel K, Hua X, Huang L. *Transforming Clinical Research to Improve Outcome for Preterm Infants.* $2,642,199; 2021-2025

Australian Government Accelerating Commercialisation Grant

Theda C, Navi Medical Technologies. *Neonav: medical device to enable safer care for critically ill newborns.* $600,000; 2022-2024

Grant success

NHMRC Grants awarded in 2024 to start in 2025

Centre for Clinical Research Excellence

Cheong, J., Manley, B., Anderson, P., Spittle, A., Lee, K., Oei, J., Owen, L., Davis, P., Shepherd, E. and Hodgson, K. *EPIC - Extremely Preterm Infant CRE: Innovative methods to improve the health and development of our most immature infants.* $3,000,000.00. 2025-2029

Tarzia, L., Hegarty, K., Loxton, D., Palmer, V., Cullen, P., Kulkarni, J., Rosenbaum, S., Holliday, E., O'Doherty, L. and Glass, *N. RESTORE Centre of Research Excellence: Transforming health systems to restore wellbeing and enhance access to healing after sexual violence in adulthood.* $3,000,000.00. 2025-2029

Ideas Grants

Donoghue, J., Tinn Teh, W. and Healey, M. *Molecular Mechanisms of Abnormal Uterine Bleeding.* $1,578126. 2025-2027

Dimitriadis, E., Tinn Teh, W. and Rombats, L. *A new way to see endometrial receptivity defects and implantation failure.* $1,119,788. 2025-2027

Investigator Grants

Spittle, A. *Optimising developmental outcomes for children born preterm using digital health solutions.* $2,924,080. 2025-2029

Student completions

Doctor of Philosophy

Zobaida Edib. PhD, University of Melbourne. *The Disposition of Surplus Eggs by Elective Egg Freezers.* Supervisors: Michelle Peate, Yasmin Jayasinghe and Martha Hickey.

Anna Kidman. PhD, University of Melbourne. *Higher vs. standard continuous positive airway pressure to prevent extubation failure in extremely preterm infants.* Supervisor: Brett Manley.

Genia Rozen. PhD, University of Melbourne. *Evaluation of uterine function.* Supervisors: Eva Dimitriadis, Kate Stern, Yasmin Jayasinghe.

Sherine Sandhu. PhD, University of Melbourne. *Evaluation of a decision aid for women considering non-medical egg freezing.* Supervisors: Michelle Peate, Martha Hickey, R. Lew and S Braat.

Arun Sett. PhD, University of Melbourne. Lung imaging using ultrasound. Supervisors: Peter Davis, Brett Manley.

Charlie Smithson. PhD, Latrobe University. Exploring the care we provide to women with disabilities. Supervisors: Helen McLachlan, Della Forster and Michelle Newton.

Masters (MSc)

Nicola Wylie. MSc, University of Melbourne. *How was your care?* Supervisor: Louise Harms

Yimiao Yu. MSc, University of Melbourne. *New models to investigate placental development.* Supervisors: Eva Dimitriadis, Ellen Menkhorst, Wei Zhou.

Bachelor Degree (Honours)

Christine Farah. BSc (Hons), University of Melbourne. *Environmental concentrations of PFOS and PFOA negatively impact human endometrial Hand trophoblast cell function.* Supervisor: Eva Dimitriadis.

Elle Primrose Mroczkowski. BSc (Hons), *University of Melbourne. Screening for family violence in antenatal care.* Supervisors: Minerva Kyei-Nimakoh, Kelsey Hegarty.

Amy Shanfield. BSc (Hons), University of Melbourne. *The Effects of Endocrine Disrupting Chemicals on Endometrial Receptivity and Implantation.* Supervisor: Eva Dimitriadis.

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The Margaret Lawrence Bequest

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